Windows®. Life without Walls™.
Fujitsu recommends Windows 7.

DATASHEET
FUJITSU ESPRIMO P9900 E-STAR 5.0 DESKTOP PC

THE EXPANDABLE BUSINESS WORKHORSE

ESPRIMO P9900 E-STAR 5.0

The ESPRIMO P9900, equipped with state-of-the-art, highly innovative Intel® processor technology with Turbo Boost and hyperthreading, is the ideal companion for all those highly demanding business applications. Produced with selected material and equipped with comprehensive powersave options and energy-saving management, the ESPRIMO microtower PC today already meets the environment requirements of tomorrow. With extended system management functions, intelligent hardware design, extensive tests and a lifecycle of up to 18 months, the high performance levels of this PC meet every requirement. Furthermore, this microtower, equipped with a power supply with up to 87% efficiency, meets ENERGY STAR® 5.0 certification requirements.

MICROTOWER
Maximum performance and optimal extendability
- Top-quality, high-value microtower, 6 drive bays, 4 PCI/PCI express interfaces

ENVIRONMENTALLY CONSCIOUS PRODUCT WITH ENERGY STAR 5.0 CERTIFICATION
Your contribution to environmental protection for the continued existence of our planet
- Halogen-free mainboard, sophisticated product concept for the entire lifecycle

HIGHEST ENERGY EFFICIENCY COUPLED WITH INTELLIGENT PERFORMANCE
The best-in-class regarding power consumption combined with new levels of performance
- State-of-the-art Intel® Core™ processors with Turbo Boost and hyperthreading technology and a power supply with up to 89% efficiency

SYSTEM MANAGEMENT
Easy system administration for complex IT infrastructure
- Intel® vPro™ technology

SILENT OPERATION
Pleasant working environment due to an extremely quiet system
- Innovative hardware design, optimized fan concept

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COMPONENTS

PROCESSOR	Intel® Core™ i7-870 processor (4 Cores / 8 Threads, 2.93 GHz, 8 MB)
	Intel® Core™ i7-860 processor (4 Cores / 8 Threads, 2.80 GHz, 8 MB)
	Intel® Core™ i5-760 processor (4 Cores / 4 Threads, 2.80 GHz, 8 MB)
	Intel® Core™ i5-750 processor (4 Cores / 4 Threads, 2.66 GHz, 8 MB)
	Intel® Core™ i5-680 processor (2 Cores / 4 Threads, 3.6 GHz, 4 MB, Intel® HD Graphics)
	Intel® Core™ i5-670 processor (2 Cores / 4 Threads, 3.46 GHz, 4 MB, Intel® HD Graphics)
	Intel® Core™ i5-660 processor (2 Cores / 4 Threads, 3.33 GHz, 4 MB, Intel® HD Graphics)
	Intel® Core™ i5-650 processor (2 Cores / 4 Threads, 3.20 GHz, 4 MB, Intel® HD Graphics)
	Intel® Core™ i3-550 processor (2 Cores / 4 Threads, 3.20 GHz, 4 MB, Intel® HD Graphics)
	Intel® Core™ i3-540 processor (2 Cores / 4 Threads, 3.06 GHz, 4 MB, Intel® HD Graphics)
	Intel® Pentium® processor G6950 (2 Cores / 2 Threads, 2.80 GHz, 3 MB, Intel® HD Graphics)
OPERATING SYSTEM	
Operating system optional preinstalled	Genuine Windows 7® Home Basic (EM) 32-bit Genuine Windows 7® Home Premium Genuine Windows 7® Professional TwinLoad Microsoft® Windows® XP Professional (DVD)
Operating system compatible	Linux Genuine Windows® Vista
Operating system notes	Dependent on configuration Windows 7® versions are: Microsoft Office 2007 ready Microsoft Office 2010 preloaded. Purchase a Product Key to activate a full Microsoft Office 2010 suite. Limited Windows XP support. Microsoft discontinued Windows XP certification on system level.
MEMORY MODULES	2 GB (1 module(s) 2 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM
	4 GB (1 module(s) 4 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM
HARD DISK DRIVES (INTERNAL)	SSD SATA, 128 GB, 2.5-inch
	SATA II, 7200 rpm, 1000 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T. business critical
	SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 320 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 250 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 160 GB, 2.5-inch, S.M.A.R.T.
Hard disk notes	Supporting NCQ and 3 GBit
GRAPHICS ADD ON CARDS (OPTIONAL)	ATI Radeon® HD 3450, 256 MB
	ATI Radeon® HD 5450, 512 MB
	DP to DVI-D (single link) Adapter Cable
	NVIDIA® GeForce® 9300GE, 512 MB
	NVIDIA® GeForce® 9300GE display port low profile, 512 MB
	NVIDIA® GeForce® 9500GS, 512 MB
	NVIDIA® Quadro® NVS 290, 256 MB
DRIVES (OPTIONAL)	Blu-ray Disc™ Triple Writer
	DVD-ROM
	DVD Super Multi
	MultiCard Reader 20in1, 3.5-Inch

INTERFACE ADD ON CARDS/COMPONENTS (OPTIONAL)	
	WLAN III, 802.11g/Draft-n (Windows only)
	Parallel Interface
	Modem adapter kit (EU)
	Modem 56k incl. RJ11 modem cable
	Gigabit Ethernet PCIe x1
	FireWire PCI-Card IEEE1394
	eSATA Interface
	Dual serial card PCI
Base unit	ESPRIMO P9900 E-Star5
MAINBOARD	
Mainboard type	D2912
Formfactor	µBTX
Chipset	Intel® Q57
Processor socket	LGA 1156
Processor quantity maximum	1
Memory slots	4 DIMM (DDR3)
Supported capacity RAM (max.)	16 GB
Memory frequency	1333 MHz
Memory notes	Dual channel support. For dual channel performance, identical memory modules in each channel are necessary (minimum 2 modules).
LAN	10/100/1000 MBit/s Intel® 82578 DM
BIOS version	Phoenix 6.0
BIOS features	BIOS Flash EPROM update by software Recovery BIOS
Audio codec	Realtek ALC663
Audio features	Internal speaker supports audio playback, High Definition audio, 5.1 surround sound
I/O CONTROLLER ON BOARD	
Serial ATA total	4
thereof eSATA	2 (optional)
Controller functions	Serial ATA II NCQ and 3 GBit AHCI Raid 1/0
INTERFACES	
Audio: line-in	1
Audio: line-in / microphone	1
Audio: line-out	1
Front audio: microphone	1
Front audio: headphone	1
USB 2.0 total	14
USB front	2
USB rear	8
USB internal	4
VGA	1 (via DVI to VGA adapter; included for onboard graphics only)
DisplayPort	1 (for onboard graphics only)
DVI	1 (for onboard graphics only)
Serial (RS-232)	1 (9pin, 16 byte FIFO, 16550 compatible)
Mouse / Keyboard (PS/2)	2
Ethernet (RJ-45)	1
Parallel	1 (optional) (25pin with EPP and ECP)
Interface Module notes	Anytime USB charge functionality

INPUT DEVICE / COMPONENTS	
	Optical USB tilt wheel mouse
Input devices (optional)	Optical USB/PS2 tilt wheel mouse
DRIVE BAYS	
Drive bays total	6
3.5-inch internal bays	2
3.5-inch external bays	2
5.25-inch external bays	2
SLOTS	
PCI-Express 2.0 x16	1 x (230 mm) FlexySlot
PCI-Express x4 (mech x16)	1 x (230 mm) full height
PCI (32-bit / 33 MHz)	2 x (170 / 315 mm) full height
GRAPHICS ON BOARD	
Graphics brand name	Intel® HD Graphics (integrated in dual-core processors only)
Shared video memory	up to 1759 MB
Refresh rate 1024 x 768 (recommended / max.)	85 Hz / -
Refresh rate 1280 x 1024 (recommended / max.)	85 Hz / -
Refresh rate 1600 x 1200 (recommended / max.)	85 Hz / -
TFT resolution (VGA)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel
TFT resolution (DVI)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel
TFT resolution (DisplayPort)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel 2560 x 1440 pixel 2560 x 1600 pixel via DisplayPort and Dual Link DVI
Graphics features	DirectX 10 HDCP support OpenGL® 2.1
Graphics notes	Graphics controller integrated in dual-core processors. For quad-core processors graphics card is mandatory. Tested resolutions, depending on display type additional resolutions and frequencies possible Shared memory depending on main memory size and operating system Resolution (color depth up to 32 Bit/pixel) For TFT we recommend using 60Hz
ELECTRICAL VALUES	
Power efficiency note	power supply efficiency (at 230V; 20% / 50% / 100% load) : 85% / 87% / 85%
	0-Watt mode with hard-off switch
Rated voltage range	100 - 240 V
Rated frequency range	50 - 60 Hz
Operating voltage range	90 - 264 V
Operating line frequency range	47 - 63 Hz
Max. output of single power supply	300 W
Power factor correction/active power	active

ELECTRICAL VALUES	
Monitor outlet	No
POWER CONSUMPTION	
Power consumption note	See white paper Energy Consumption 0-Watt mode with hard-off switch
Link to Energy White Paper	http://docs.ts.fujitsu.com/dl.aspx?id=adfeda65-820c-4844-b1a2-a270b53134db
HEAT DISSIPATION	
Heat dissipation notes	See white paper Energy Consumption
NOISE FOR STANDARD CONFIGURATION (HDD, ODD, FDD)	
Noise emission	According to ISO9296
Related Processors for noise	Intel® Core™ i5-670 ; Intel® Core™ i7-860 including NVIDIA® Geforce® 9500GS
Noise Operation mode 1: ODD load (Blue angel requirement)	4.4 B / 29 dB(A) ; 4.4 B / 29 dB(A)
Noise Operation mode 2: HDD load (Blue angel requirement)	3.7 B / 21 dB(A) ; 3.6 B / 21 dB(A)
Noise Operation mode 3: CPU 90% load (Blue angel requirement)	3.9 B / 24 dB(A) ; 3.9 B / 24 dB(A)
Noise Operation mode 4: High load	3.9 B / 23 dB(A) ; 3.9 B / 24 dB(A)
Noise Operation mode 5: Office applications	3.8 B / 22 dB(A) ; 3.6 B / 20 dB(A)
Idle mode (Blue Angel requirement)	3.7 B / 20 dB(A) ; 3.6 B / 20 dB(A)
Noise notes / description	A weighted sound power level Lwad (in B) / workplace related A-weighted sound pressure level LpAm (in dB(A)), Bystander position
DIMENSIONS / WEIGHT / ENVIRONMENTAL	
Dimensions (W x D x H)	203 x 390 x 392 mm
Operating position	Vertical
Weight	approx. 12 kg
Weight notes	Actual weight may vary depending on configuration
Operating ambient temperature	10 - 35°C
COMPLIANCE	
Product	ESPRIMO P9900
Model	MI3W-D2912
Germany	Blauer Engel / Blue Angel GS optional
Europe	CE Nordic Swan
USA/Canada	FCC Class B cCSAus
Global	RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronical equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL) ENERGY STAR® 5.0 EPEAT® Silver
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/default.aspx
ADDITIONAL SOFTWARE	
Additional software (preinstalled)	Nero Essentials S (burning software)
Additional software (optional)	Recovery DVD for Windows® Drivers & Utilities DVD (DUDVD) CyberLink PowerDVD BD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive) Nero 9 Essentials XL
MISCELLANEOUS	
	Keyboard on (Fujitsu keyboard required) Thermal management

COMPATIBILITY (REFERENCES)	
	DMI 2.0 PC 2001 WMI 1.5 USB 2.0 SMBIOS
MANAGEABILITY	
Manageability features	DeskUpdate Driver management PXE 2.1 Boot code Wake up from S5 (off mode) Intrusion switch (optional) iAMT 6.0
Manageability type	DeskView 10.x client management including:
DeskView features	On/Offline remote client management Detailed system inventory management and reports BIOS Management Remote power management System notifications Advanced alerts (ASF implementation) Security Remote Control DeskView Helpdesk Integration WoL (Wake on LAN)
SECURITY	
Physical security	Kensington Lock support Eye for padlock Optional: Integrated cabinet lock
System security	Boot sector virus protection Write protect option for the Flash EPROM Embedded security (TPM 1.2) Control of all USB interfaces External USB ports can be disabled separately Control of external interfaces
User security	User and supervisor BIOS password SystemLock 2 BIOS SmartCard Security Hard disk password Optional: Access protection via external SmartCard reader Optional: Access protection via internal SmartCard reader
SERVICEABILITY	
	FlexySlot EasyFix EasyChange for HDD EasyChange for optical drives
PACKAGING INFORMATION	
Packaging dimension	500x290x540 mm
Max. quantity / pallet	24
Material - Weight (g) Carton	1270 g
Material - Weight (g) EPS / PS	230 g
Material - Weight (g) PE	appr. 60 g
Packaging notes	printed user documentation is bleached in chlorine free process
WARRANTY	
Standard Warranty	3 years
Service level	Bring-In / On-Site Service (depending on country)
MAINTENANCE AND SUPPORT SERVICES - THE PERFECT EXTENSION	
Recommended Service	5x9, Response Time: Next Business Day
Spare Parts availability	5 years
Service Weblink	http://ts.fujitsu.com/Supportservice

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FUJITSU PLATFORM SOLUTIONS

In addition to Fujitsu ESPRIMO P9900 E-Star 5.0, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Dynamic Infrastructures
With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

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MORE INFORMATION

Learn more about Fujitsu ESPRIMO P9900 E-Star 5.0, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
http://ts.fujitsu.com/ESPRIMO

FUJITSU GREEN POLICY INNOVATION

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT. Please find further information at http://www.fujitsu.com/global/about/environment/

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